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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/597,639

08/02/2006

Josephus Arnoldus Kahlman

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09/28/2011

PHILIPS INTELLECTUAL PROPERTY & STANDARDS

P.O. BOX 3001

BRIARCLIFF MANOR, NY 10510

EXAMINER

MOERSCHELL, RICHARD P

ART UNIT

PAPER NUMBER

1641

NOTIFICATION DATE

DELIVERY MODE

09/28/2011

ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary	Application No.	Applicant(s)	
	10/597,639	KAHLMAN ET AL.	
	Examiner	Art Unit	
	RICHARD MOERSCHHELL	1641	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 1 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 22 November 2010.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ An election was made by the applicant in response to a restriction requirement set forth during the interview on ____; the restriction requirement and election have been incorporated into this action.
- 4) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 5) ☒ Claim(s) 2,3,4,5,6,8,11,12,17,20 and 22-25 is/are pending in the application.
- 5a) Of the above claim(s) 9,12-16 and 21 is/are withdrawn from consideration.
- 6) ☐ Claim(s) ____ is/are allowed.
- 7) ☐ Claim(s) ____ is/are rejected.
- 8) ☐ Claim(s) ____ is/are objected to.
- 9) ☒ Claim(s) 2,3,4,5,11,17,20,22,6,23,24,25,8,12 are subject to restriction and/or election requirement.

Application Papers

- 10) ☐ The specification is objected to by the Examiner.
- 11) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 12) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. ____. |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date ____. | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

Election/Restrictions

Restriction is required under 35 U.S.C. 121 and 372.

This application contains the following inventions or groups of inventions which are not so linked as to form a single general inventive concept under PCT Rule 13.1.

In accordance with 37 CFR 1.499, applicant is required, in reply to this action, to elect a single invention to which the claims must be restricted.

Group I, claim(s) 2-5, 11 and 17, 20 and 22, drawn to a magnetic sensor device.

Group II, claim(s) 6 and 23-25, drawn to a magnetic sensor device.

Group III, claim(s) 8, drawn to a magnetic sensor device.

The groups of inventions listed above do not relate to a single general inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, they lack the same or corresponding special technical features for the following reasons:

The technical features linking Groups I-III appear to be a substrate, magnetic field generator and cross-talk suppression circuit. Other limitations recited in the groups are specific to each group and are therefore not considered common technical features. The technical features linking Groups I-III, however, are not free of the prior art. Indeed, the combination of the **Tondra** (US 6743639), **Cruden** (US 5486754) and **Nauta** (US 5065093) references teach these limitations.

Tondra describes an apparatus comprising magnetoresistors on a substrate (column 13, lines 45-60 and Figure 17: reference numbers "13" and "14" as the magnetoresistors). The magnetoresistors can be GMR sensors that sense a magnetic characteristic of a bead in the presence of an externally applied magnetic field (column 13, lines 23-25). With this description, Tondra teaches a magnetic sensor element on a substrate and at least one field generator as claimed. Cruden states that cross-talk occurs when magnetic fields from external sources interfere with the reading of a particular magnetic sensor (column 4, lines 41-47). Nauta describes a means for screening magnetic fields between two measuring coils, in order to suppress mutual crosstalk (abstract). Thus the subject matter of claims 2, 6 and 8 lack novelty over Tondra, Cruden and Nauta (Article 33(2) PCT). Accordingly, unity of invention between Groups I-III is lacking. Furthermore, Groups I, II and III have differing special technical features:

Group I has probe element supported by the substrate.

Group II has a cross-talk suppression circuit which suppresses cross-talk between the magnetic sensor element and the first magnetic field generator, the cross-talk suppression circuit combining a signal from the first ac current source with at least a component of the sensor signal.

Group III has a cross-talk suppression circuit which compensates for a cross-talk signal originating from the first magnetic field generator having the first frequency.

This application contains claims directed to more than one species of the generic invention. These species are deemed to lack unity of invention because they are not so linked as to form a single general inventive concept under PCT Rule 13.1.

In the event that Group I is elected, a species election must be made. Applicant must select one from group A and one from group B (below). The species are as follows:

A. Cross-talk suppression means:

Species 1. Electrostatic shielding device (claim 3); or

Species 2. Electrical frequency distinguishing means (claim 4); or

Species 3. Electrical phase distinguishing means (claim 5).

B. Type of arrangement between the substrate and the magnetic sensor element:

Species 4. Magnetic field generator is positioned between a substrate and a magnetic sensor element (claim 11); or

Species 5. Flux guiding layer positioned between a substrate and a magnetic sensor element (claim 17).

Applicant is advised that the reply to this requirement to be complete must include (i) an election of a species or invention to be examined even though the requirement may be traversed (37 CFR 1.143) and (ii) identification of the claims encompassing the elected invention.

The election of an invention or species may be made with or without traverse. To preserve a right to petition, the election must be made with traverse. If the reply does not distinctly and specifically point out supposed errors in the restriction requirement, the election shall be treated as an election without traverse. Traversal must be presented at the time of election in order to be considered timely. Failure to timely traverse the requirement will result in the loss of right to petition under 37 CFR 1.144. If claims are added after the election, applicant must indicate which of these claims are readable on the elected invention or species.

Should applicant traverse on the ground that the inventions have unity of invention (37 CFR 1.475(a)), applicant must provide reasons in support thereof. Applicant may submit evidence or identify such evidence now of record showing the inventions to be obvious variants or clearly admit on the record that this is the case. Where such evidence or admission is provided by applicant, if the examiner finds one of the inventions unpatentable over the prior art, the evidence or admission may be used in a rejection under 35 U.S.C. 103(a) of the other invention.

Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

Art Unit: 1641

Any inquiry concerning this communication or earlier communications from the examiner should be directed to RICHARD MOERSHELL whose telephone number is (571)270-3784. The examiner can normally be reached on Monday - Friday 8 - 4:30 EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mark Shibuya can be reached on 571-272-0806. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

RM

/Nelson Yang/
Primary Examiner, Art Unit 1641